

Usability Test: *TRLN Discovery*

Recommendations

1. Evaluate options for renaming “At the Library” to avoid confusion between this filter and “Available.” Alternatively, consider displaying both facets under “Access Type,” even when zero online resources are available.
2. Incorporate “Availability” as a checkbox near the search box. Though the placement is different, the feature is integrated in this way in the Chapel Hill Public Library catalog (i.e., <https://goo.gl/zNeZwH>).
3. In the “This item is about” section, make the tiered subject headings more prominent; highlight individual subject heading links when hovering over each, as done in Endeca (i.e., <https://search.library.duke.edu/search?id=DUKE008306901>).
4. Make the “Expand your search” option and number of TRLN resources more prominent on the “No results” page, both by making it bigger and placing it above “no results for your search.”
5. Make the “Start Over” button stand out by placing it to the left of the applied filters and adding color, as done in the Princeton and Stanford library catalogs (i.e., <https://goo.gl/Xy5WeZ> and <https://goo.gl/Jc5eUP>).

Further Testing

6. Test the usability of the TRLN expand button, focusing on its placement and design
 - a. Would users prefer to see it placed near “Library Location” facets?
 - b. Do users know what catalog they are searching? Should both local institution and TRLN logos be displayed on toggle button, with current catalog highlighted?
7. Test the usability of online and physical access information listed on records (“Where to find it” section).
8. Test the usability of the “Advanced Search” page. Half of users went to “Advanced Search” when asked to narrow down their search by topic.

Background

This study builds on prior findings made in May 2018 by Chad Haefele at UNC and was conducted to evaluate more targeted features of the TRLN Discovery interface and provide recommendations for future improvements and testing. The study was developed and conducted by Yu Yuan and Anne Le-Huu Pineault with the guidance of Emily Daly.

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On June 6, 2018 we recruited 8 users at a table set up in the lobby of Perkins Library at Duke. Each participant was given a voucher for a coffee or snack in exchange for their time. Both Yu Yuan and Anne Le-Huu Pineault served as moderators and notetakers.

Duke's instance of TRLN Discovery (<https://lib-trln-blacklight-dev-01.oit.duke.edu>) was used for testing.

Questions we hoped to answer through this study:

1. Can users find and interpret facets and labels to narrow down their search results?
2. Do participants accurately interpret online and physical access information on records pages?
3. Do users notice the various subject heading links and do they understand their function ("This item is about" section)?
4. Can participants use the toggle button to expand their search to all TRLN libraries?
5. Can users expand their search using the link provided on the "No results" page?
6. What features or design elements are liked best, and which could be changed to make TRLN Discovery more usable?

Participants

Participant demographics:

- 3 Undergraduates
- 4 Graduate students (1 was a Perkins Library Service Desk employee)
- 1 Duke affiliate

Participant familiarity with Duke University Library's current catalog:

- 5 were "Moderately familiar"
- 2 were "Extremely familiar" or "Very familiar"
- 1 was "Slightly familiar"

Pre-test questionnaire responses are available at links in Appendix B.

Key findings

1. Can users find and interpret facets and labels to narrow down their search results?

Availability & Library Location facets

- 4/8 participants were able to successfully use the facets under the "Availability" and "Library Location" labels

- 2/8 participants intended to filter their results manually, either from the outset, or after failing to narrow down the results to items available at the Perkins Library
- 1/8 tried to use “Advanced search” to narrow down their results
- 1/8 looked to the “Resource Type” facets to narrow down their results instead of “Availability” & “Library location”

About Topic facets

When it comes to narrowing down results to a sub-topic, participants were more likely to use the “Advanced search” feature:

- While 3/8 participants completed the task using a facet under “About Topic”, 4/8 participants went to “Advanced search”
 - 1 user searched for [“colonialism ” and “mental illness”], and obtained expected results
 - 2 users searched for [colonialism mental illness] and did not get any results
- One felt confused that they couldn’t add new search boxes linked with booleans
- 2 users tried clicking “Search within results” but the feature was unavailable

Online facet

- 5/8 users were able to narrow down their results using the “Online” facet under “Access Type”
- 3/8 users were unable to narrow down their results to online resources
 - One didn’t go back from the previous search, so the “online” choice didn’t show up
 - Two users seemed to think of online resources as a type of resource. One of them looked under the “Resource Type” label while the other simply mentioned that they were looking for an “article” option.

General labels & facets feedback

- 2 users were confused by the “Access Type” label and the “At the Library” facet (this could be partly because when there are no online resources amongst the results, “At the Library” is the only facet displayed)
- One user would prefer to see “Available” displayed as a checkbox near the search box

2. Do participants accurately interpret online and physical access information on records pages?

“Online Access” link

- One participant did not notice the access link because they were looking for a PDF link, as in Google Scholar
- All other users were able to access the resource by clicking the “Online Access” link

Physical Copy

- 6/8 users successfully interpreted the physical copy information, cued by elements such as “US Documents”, “At the Library” or the call number
 - One clicked on the “+show 1 item” expand button and was still unsure about whether or not a physical copy was available at Duke. They mentioned that incorporating a map (like in the current version) would be helpful.
3. Do users notice the various subject heading links and do they understand their function (“This item is about” section)?
- 4/8 participants explicitly mentioned that the items listed under “This item is about” link users to resources on similar topics, while others mentioned that they were keywords/topics related to the resource
 - None of the participants figured out that several tiers of links are provided under each subject heading, despite the fact that some participants clicked on the different tiers of links on different bullet items during the exploration.
 - Before clicking, one of the participants was not sure whether the link would link to the different parts of the resource itself or to other resources related to this topic.
4. Can participants use the toggle button to expand their search to all TRLN libraries?
- When asked to expand their search to all TRLN libraries, 4/8 users turned to labels and facets (2 users looked at the “At the Library” facet, and 2 looked under the “Library Location” label).
 - 2 participants mentioned that they would have expected to see both Duke and other TRLN libraries listed under one label
 - 4/8 users located the expand button right away
5. Can users expand their search using the link provided on the “No results” page?
- 3/8 users did not locate the “Expand your search” link on the first try and 1/8 did not locate the “Expand your search” link at all
 - 4/4 of these users recommended that this feature be highlighted further when asked for feedback
 - Out of the 4/8 who located the “Expand your search” option right away, 3/4 users suggested that the feature be further highlighted
6. What features or design elements are liked best, and which could be changed to make TRLN Discovery more usable?
- 3/8 users mentioned the “clean” or “simple” design as one of their best liked features

- 6/8 users mentioned the facets & labels as one of their most liked features
- While performing testing, we noticed that users were slowed down by having to clear filters between searches. Some of them deleted each one manually while others did not notice their search had been narrowed down.
 - 3/8 users explicitly mentioned that they did not like having to clear the filters between searches.
- 4/8 users mentioned the “Expand your search” option on the “No Results” page as one of their least liked features
 - 3/4 would like to see the option more prominently displayed
 - 1/4 thinks records should be presented even if they are not available at Duke
- 3/8 users liked the TRLN toggle button and the way it is displayed
- 3/8 would prefer to see the toggle option displayed differently
 - 1/3 found the toggle option unclear, and suggested that both Duke and TRLN logos be shown at all times, but that only the relevant one be highlighted
 - 2/3 users mentioned that they would like to see all TRLN libraries as facets under one label (they had both mentioned this when performing the task)
- 2/8 users mentioned the absence of abstracts from records pages as one of their least liked features

Appendix A: Test Script

Hello [NAME]. Thank you for volunteering to participate in this study. My name is [NAME] and I will be walking you through our tasks today. I will mostly be reading from a script to ensure each testing session is as consistent as possible.

The goal of this study is to test the usability of a new search tool for library resources and materials here at Duke.

All of the tasks we are going to complete today should take around fifteen minutes, but don't worry about going too fast or too slow. There is no right or wrong action, because I am testing the system, not you. I will ask you to think aloud while you complete tasks using the system so that I can get an idea of the thought process behind your behaviors. Your input is very valuable to our research so please be as honest as possible when providing feedback. If you have any questions as we go along, don't hesitate to ask. I may not be able to answer them right away, since we're interested in how people do when they don't have someone guiding them. But if you have any questions when we're done I'll try to answer them then. Do you have any questions for me so far?

Before we get started, I need your full name to confirm that you've consented to participate in this study.

[TAKE DOWN PARTICIPANT'S NAME]

Thank you.

Now I'd like you to answer a few questions about your previous experience. I have the questionnaire pulled up on the computer. Please take a moment to complete it. Let me know if you have any questions.

[PRE-TEST QUESTIONNAIRE] demo, experience

Thanks. If you are ready to begin, I am going to start recording.

Now I'm going to ask you to try doing some specific tasks. Please remember to think aloud as you complete each task.

[TASK 1]

Now let's say you're doing research on "colonialism". Try searching for that topic. Remember to think aloud while searching.

[OBSERVE: does user use "start over"? back button? just uses the search widget?]

There are a few changes I would like you to perform:

1. Now, you're interested in looking at items that are currently available and that are located in Perkins Library. Show me how you would do that.
[OBSERVE: does user look to the "Availability" and "Library Location" facets in sidebar?]
2. And can you narrow down these results to resources focusing on mental illness?
[OBSERVE: does user look to the "About Topic" facets in sidebar?]

[ASK: Now that you've gotten acquainted with it, can you tell me if there's anything you found challenging or confusing about the left hand menu?]

Thanks.

[TASK 2]

Now let's say you're looking for resources about "tourism," and you're especially interested in resources that are available online. Show me how you would find online resources on tourism. Remember to think aloud while searching.

[OBSERVE: does user use "Access Type" facet tree? If so, before or after typing keyword?]
[IF the user didn't click select "Online" Access Type, point them to it.]

I am now going to ask you to click on the second item on the list, and I'll ask you some questions about it.

1. How would you go about accessing this item?
[OBSERVE: Can user find and interpret online availability?]
2. Do we have a physical copy of this item here at Duke?
[OBSERVE: Does user distinguish online availability from local availability?]

3. Can you scroll down to the “This item is about” and tell me what it is for?
[OBSERVE: Can the user interpret the “This item is about” correctly?]
4. What do you expect to happen when you click on the different links? You can take a moment to explore each bullet point.
[OBSERVE: Can the user find out the different links on the item?]

[TASK 3]

Next, I’d like you to go back to your search on “tourism”.

[OBSERVE: does the user use “Back to Search” button or the browser’s BACK button]

1. Now you’d like to see if there are items on this topic at other libraries in the Triangle. Show me how you would do this.
[OBSERVE: does user look to the TRLN expand link?]

[If user does not find the expand link, click it for them before the next question.]

2. How many online resources on “tourism” can you find across the different University libraries in our area?
[OBSERVE: can user find total number of results?]

[TASK 4]

Let’s say you need the textbook “Learning Java” for a class. Is this book available here at Duke?

1. Is there another way to get a copy of this textbook? Show me what you would do next.

[OBSERVE: can the user locate and interpret “Expand your search” link?]

2. Are these resources available here at Duke? If not, where are they available?

[OBSERVE: do they notice the difference between the Duke and TRLN interfaces?]

[ASK: I noticed that you [CLICKED ON or DID NOT CLICK “EXPAND YOUR SEARCH” BUTTON]. What do you think of the way the option to expand your search is displayed?]



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[END TASKS]

Great! That concludes our final task. I have some additional questions I'd like to ask you.

[POST-TEST QUESTIONNAIRE]

Thank you!

Do you have any more questions for me?

Thank you so much for your participation in this study.

Have a great day!

Pre-Test Questionnaire

1. Which of the following describes you best?

- Undergraduate student
- Graduate student
- Doctoral candidate
- Faculty
- Staff
- Other: _____

2. IF UNDERGRAD/GRAD/DOC: How many years have you been enrolled at Duke?

3. IF UNDERGRAD/GRAD/DOC: What is your major or program of study?

4. IF FACULTY/STAFF: How many years have you been in your current position?

5. IF FACULTY/STAFF: What is your department?

6. On average over the last semester, how frequently have you visited the Duke University Libraries website **for research purposes**?

- Never
- Once or twice
- Monthly
- Weekly
- Daily

7. How familiar are you with using the libraries' current catalog to search for a book, journal, or other materials?



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extremely familiar – very familiar – moderately familiar – slightly familiar – not familiar at all

Post-Test Questionnaire

1. What two things about this search tool did you like best?

2. What two things about this search tool did you like least?

3. While performing the tasks, you changed the scope of your search to include or exclude materials at other Triangle University libraries. Tell me about your experience transitioning between Duke items and items at the other Triangle libraries.

4. Do you have any other comments or suggestions?

Appendix B: *Pre-test questionnaire responses*

- <https://ql.tc/sOK7JO>